



2008 Tactical Wheeled Vehicles Conference (TWV)

Monterey, California

3- 5 February 2008

Agenda

**Monday, 4 February 2008**

**Session 1**

TWV: During and Post OIF by Mr. Anthony Melita

Tactical Wheeled Vehicles Conference by GEN Benjamin S. Griffin

Briefing

Video

Army Wheeled Vehicle Fleet From the G-4 Foxhole by MG Vincent Boles

The 21st Century Army Reserve by LTG Jack Stultz

**Session 2**

The Army –Transforming while at War by LTG Stephen Speakes

Depot Panel

Part I

Part II

by Ms. Janet Bean, Col. Douglas Evans, Col. Scott Kidd, and Dr. John R. Gray

Mitigating Future Uncertainties by Leveraging Strategic Partnerships by Col. Scott Dalke

Marine Corps Ground Combat Tactical Vehicle Strategy by Brigadier General Larry Nicholson

PEO Land Systems Marine Corps by Col. Bill Taylor

Joint Program Office Mine Resistant Ambush Protected Vehicles by Mr. Paul Mann

**Tuesday, 5 February 2008**

**Session 3**

Meeting the Challenges of Today and Tomorrow by BG James Chambers, BG John R. Bartley, and Col. John “Steve” Myers

Briefing

Video

The Army Truck Team

PM Heavy Tactical Vehicles by LTC Allen Johnson

PM Light Tactical Vehicles by LTC Sam Homsy

“Thanks You for Making Such a Great Workhorse” M1078A1 LMTV by LTC Alfred Grein

## CONFERENCE PROGRAM

### HIGHLIGHTS:

MEET AND HEAR FROM KEY DoD,  
ARMY & MARINE CORPS LEADERS.

- *KEYNOTE ADDRESS:*  
MR. ANTHONY MELITA,  
OFFICE OF THE UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY AND LOGISTICS (OUSD(AT&L)/A&T/PSA/LW&M)
- *UNITED STATES ARMY MATERIEL COMMAND (AMC):*  
GEN BENJAMIN S. GRIFFIN, USA  
COMMANDING GENERAL ARMY MATERIEL COMMAND
- *BGEN MICHAEL M. BROGAN, USMC*  
COMMANDER  
MARCORSYSCOM
- PLUS A PRESENTATION AND OVERVIEW OF THE MRAP PROGRAM BY THE JOINT PROGRAM MANAGER

THIS YEAR'S CONFERENCE WILL HIGHLIGHT THE ACTIONS TO IMPLEMENT THE ARMY'S RECENTLY ANNOUNCED TACTICAL WHEELED VEHICLES TRANSFORMATION STRATEGY.

# 2008 TACTICAL WHEELED VEHICLES CONFERENCE



NDIA  
2008 Tactical Wheeled Vehicles Conference (TWV)  
Event #8530  
February 3 - 5, 2008

The Portola Plaza Hotel at Monterey Bay  
& Monterey Conference Center  
Monterey, California

Welcome to the 2008 Tactical Wheeled Vehicles Conference.

Objective:

This annual seminar historically has brought the military service, industry, prime contractors, subcontractors and their suppliers together to discuss present and future wheeled vehicle requirements for all services. It has afforded an atmosphere for open discussions between the customers and the suppliers based on the needs of the military users. This is the only conference held specifically for the military's Tactical Wheeled Vehicle community.

The information presented is valuable to program managers, engineers, planners and marketers. In addition, open discussions will be invaluable to DoD planners and program managers. This year's theme is: "TWV: DURING AND POST-OIF."

## CONFERENCE DESCRIPTION

**This year's Tactical Wheeled Vehicle (TWV) Conference will highlight the actions being taken to implement the Army's recently announced new TWV Transformation Strategy. The strategy was developed and resourced by an Army TWV Board of Directors made up of key Army leaders and decision makers in the Pentagon, the PEO CS/CSS and the Chief of Transportation. The intent of this strategy is to ensure the Army and the other services will have a balanced and viable TWV fleet through FY '18 and beyond. This Conference will address the procurement of new vehicles while conducting the cyclic refurbishment of existing vehicles. Other topics will include the status of the ongoing ACTD's intended to modernize the current fleet, and how the Army intends to provide for the spiral insertion of new technologies to support these efforts.**

**This is the only annual conference held that is specific to the military's Tactical Wheeled Vehicle community. It has historically brought Department of Defense representatives, prime contractors, subcontractors, and their suppliers together to discuss present and future wheeled vehicle requirements for all services. It has afforded an atmosphere for open discussions between the customers and the suppliers based on the needs of the military users. The information presented is valuable to program managers, engineers, planners and marketers. In addition, open discussions will be invaluable to DoD planners and program managers.**

The agenda speakers, schedule and room assignments contained herein are subject to change.

There are no exhibits or displays at this conference --  
it is a conference only.

Cover graphic design by: Mark C. Barbes, PEO CS&CSS

# TACTICAL WHEELED VEHICLES DIVISION:

## Mission/Objective/Purpose

### Division Objectives

The primary objective of the Tactical Wheeled Vehicle Division of NDIA is to enhance the security of the United States by promoting communications and interaction between defense industry, government and military in the area of automotive activities.

The specific charter of the Tactical Wheeled Vehicle Division is to conduct conferences in technology areas directly related to automotive research, design, development, test and production. Such conferences are intended to present advanced technology and provide for an exchange of information and an interchange of views between defense industry, government and military representatives. The effective cooperation between these three groups is vital to our defense effort in the tactical wheeled vehicle area. Each group brings unique inputs to such conferences. No one group can function at maximum effectiveness without the other two.

### Specific Objectives:

- ▶ To serve as an effective communications vehicle for the exchange of views and information between government and industry on matters of common concern.
- ▶ To foster mutual understanding and effective working relationships between government and industry in order to achieve a sound body of government policy and procedures which will serve both the security objectives of the United States as well as the commercial interests of its industry.
- ▶ To provide government with industry advice on government policies, practices and procedures and industry's needs and problems within the Division's purview.

### Mission Responsibility:

To promote national exchanges between the Defense Department, government agencies and industry, of information relating to the design, development, acquisition and support of vehicles and vehicle systems employed in land and amphibious military operations.

### *2008 Tactical Wheeled Vehicles Conference Committee:*

#### *Conference Chair:*

Mr. Gary Tull,  
Vice President, Government Operations,  
AM General Corporation,  
and Chairman, Tactical Wheeled Vehicle Division, NDIA

#### *Session I Chairman:*

Mr. Bruce Harrison,  
Vice President, Product Support, BAE Systems,  
and Vice Chairman, Tactical Wheeled Vehicle Division, NDIA

#### *Session II Chairman:*

Mr. Jack Reidy,  
President & CEO,  
Defense Products Marketing, Inc.

#### *Session III Chairman:*

Mr. Tom Bagwell (SES),  
Deputy Program Executive Officer, Combat Support &  
Combat Service Support (DPEO CS&CSS), U.S. Army

# SUNDAY, FEBRUARY 3, 2008

7:30 A.M. - 1:00 P.M.

9TH ANNUAL NDIA TWV GOLF SCRAMBLE  
CHECK-IN & CONTINENTAL BREAKFAST  
BAYONET GOLF COURSE, SEASIDE, CALIFORNIA  
GOLF CHAIR: CHUCK PRIKOPA

8:30 A.M.

SHOTGUN START

2:00 P.M. - 7:00 P.M.

REGISTRATION CHECK-IN  
THE DEANZA BALLROOM FOYER  
THE PORTOLA PLAZA HOTEL AT MONTEREY BAY

2:30 P.M. - 7:00 P.M.

(FINAL WHISTLE)

WELCOME RECEPTION AND SUPER BOWL PARTY  
THE DEANZA BALLROOM I AND II



ANNUAL SUPER BOWL PARTY  
SUPER BOWL XLII  
SUNDAY FEB. 3, 2008



SUPER BOWL XLII - UNIVERSITY OF PHOENIX STADIUM  
SUNDAY FEB. 3, 2008  
GLENDALE STADIUM, AZ  
2:30 P.M. - 6:30 P.M. (FINAL WHISTLE)\*  
THE DE ANZA BALLROOM  
THE PORTOLA PLAZA HOTEL MONTEREY

KICKOFF TIME 3:18 P.M. (PST) / (6:18 P.M. EST)

A SPOUSE AND/OR GUEST OF A REGISTERED ATTENDEE, MAY ATTEND THE SUPER BOWL PARTY AT AN ADDITIONAL COST OF \$90.00.

DUE TO FIRE CODE REGULATIONS, SPACE IS LIMITED. BASED ON THE OVERWHELMING RESPONSE AND ATTENDANCE IN PREVIOUS YEARS, THERE IS A STRONG POSSIBILITY THAT LATE ON-SITE SPOUSE/GUEST REGISTRATIONS WILL NOT BE ACCEPTED.

THE "SPOUSE/GUEST TICKET" FEE(S) DO NOT INCLUDE ATTENDANCE AT ANY OF THE OTHER CONFERENCE FOOD FUNCTIONS: CONTINENTAL BREAKFASTS, COFFEE BREAKS, AND/OR LUNCH, OR CONFERENCE ATTENDANCE.

# MONDAY, FEBRUARY 4, 2008

7:00 A.M. - 8:00 A.M.

CONTINENTAL BREAKFAST  
SERRA BALLROOM  
THE MONTEREY CONFERENCE CENTER

7:00 A.M. - 5:00 P.M.

REGISTRATION CHECK-IN CONTINUES  
SERRA BALLROOM  
THE MONTEREY CONFERENCE CENTER

8:00 A.M. - 8:10 A.M.

CONFERENCE OVERVIEW & WELCOME  
SERRA BALLROOM  
THE MONTEREY CONFERENCE CENTER

MR. GARY TULL  
VICE PRESIDENT, GOVERNMENT OPERATIONS,  
AM GENERAL CORPORATION AND  
CHAIRMAN, TACTICAL WHEELED VEHICLE DIVISION,  
NDIA

8:10 A.M. - 8:15 A.M.

NDIA WELCOME  
SERRA BALLROOM  
THE MONTEREY CONFERENCE CENTER

LIEUTENANT GENERAL LAWRENCE P. FARRELL, USAF (RET.)  
PRESIDENT & CEO  
NDIA

8:15 A.M. - 8:45 A.M.

KEYNOTE ADDRESS  
MR. ANTHONY MELITA  
OFFICE OF THE UNDER SECRETARY OF DEFENSE FOR  
ACQUISITION, TECHNOLOGY AND LOGISTICS  
(OUSD(AT&L)/A&T/PSA/LW&M)



# MONDAY, FEBRUARY 4, 2008 (*CONTINUED*)

## SESSION I:

CHAIRMAN: MR. BRUCE HARRISON, VICE PRESIDENT, PRODUCT SUPPORT,  
BAE SYSTEMS AND  
VICE CHAIRMAN, TACTICAL WHEELED VEHICLE DIVISION, NDIA  
*SERRA BALLROOM*  
*THE MONTEREY CONFERENCE CENTER*

8:45 A.M. - 9:15 A.M.	UNITED STATES ARMY MATERIEL COMMAND (AMC) GENERAL BENJAMIN S. GRIFFIN, USA COMMANDING GENERAL, ARMY MATERIEL COMMAND
9:15 A.M. - 9:45 A.M.	OFFICE OF THE DEPUTY CHIEF OF STAFF, ARMY G-4 MAJOR GENERAL VINCENT BOLES, USA ASSISTANT DEPUTY CHIEF OF STAFF, G4 (OPERATIONS) HEADQUARTERS, U.S. ARMY
9:45 A.M. - 10:15 A.M.	U.S. ARMY RESERVE LIEUTENANT GENERAL JACK C. STULTZ, USA CHIEF, ARMY RESERVE/ COMMANDING OFFICER, UNITED STATES ARMY RESERVE COMMAND
10:15 A.M. - 11:00 A.M.	COFFEE BREAK SERRA BALLROOM FOYER

## SESSION II

CHAIRMAN: MR. JACK REIDY,  
PRESIDENT & CEO, DEFENSE PRODUCTS MARKETING, INC.  
*SERRA BALLROOM*  
*THE MONTEREY CONFERENCE CENTER*

11:00 A.M. - 11:45 A.M.	OFFICE OF THE DEPUTY CHIEF OF STAFF, G-8, HEADQUARTERS, DEPARTMENT OF THE ARMY LIEUTENANT GENERAL STEPHEN M. SPEAKES, USA DEPUTY CHIEF OF STAFF, G-8
11:45 A.M. - 12:45 P.M.	LUNCH THE DEANZA BALLROOM I & II THE PORTOLA PLAZA HOTEL AT MONTEREY BAY



# MONDAY, FEBRUARY 4, 2008 *(CONTINUED)*

SESSION II (CONTINUED)  
CHAIRMAN: MR. JACK REIDY

12:45 P.M. - 2:00 P.M.

DEPOT PANEL

PANEL CHAIR: MAJOR GENERAL WILLIAM M. LENEARS, USA  
COMMANDING GENERAL,  
U.S. ARMY TACOM LIFE CYCLE MANAGEMENT COMMAND

PANEL MEMBERS:

- MS. JANET BEAN,  
EXECUTIVE DIRECTOR, INTEGRATED LOGISTICS SUPPORT CENTER  
(ILSC), U.S. ARMY TACOM LIFE CYCLE MANAGEMENT COMMAND
- COL DOUGLAS EVANS, USA  
COMMANDER, RED RIVER ARMY DEPOT (RRAD), U.S. ARMY TA-  
COM LIFE CYCLE MANAGEMENT COMMAND
- COL SCOTT KIDD, USA  
PROJECT MANAGER, TACTICAL VEHICLES, PROGRAM EXECUTIVE  
OFFICE, COMBAT SUPPORT & COMBAT SERVICE SUPPORT (PEO  
CS&CSS)
- DR. JOHN R. GRAY  
DEPUTY TO THE COMMANDER, LETTERKENNY ARMY DEPOT (LEAD),  
U.S. ARMY AMCOM LIFE CYCLE MANAGEMENT COMMAND

2:00 P.M. - 2:30 P.M.

USMC MAINTENANCE CENTER BARSTOW  
COL SCOTT DALKE, USMC  
COMMANDER

2:30 P.M. - 3:00 P.M.

COFFEE BREAK  
SERRA BALLROOM FOYER

3:00 P.M. - 3:30 P.M.

USMC/MCCDC  
BRIGADIER GENERAL LARRY NICHOLSON, USMC  
DEPUTY COMMANDING GENERAL,  
MARINE CORPS COMBAT DEVELOPMENT COMMAND

3:30 P.M. - 4:00 P.M.

USMC/MARCORSYSCOM  
BRIGADIER GENERAL MICHAEL M. BROGAN, USMC  
COMMANDER, MARCORSYSCOM

4:00 P.M. - 4:30 P.M.

USMC PEO  
COL BILL TAYLOR, USMC  
PROGRAM EXECUTIVE OFFICER, LAND SYSTEMS

# MONDAY, FEBRUARY 4, 2008 (*CONTINUED*)

## SESSION II (CONTINUED) CHAIRMAN: MR. JACK REIDY

4:30 P.M. – 5:15 P.M.

### JOINT MRAP PRESENTATION

- MR. PAUL MANN, USMC  
JOINT MRAP PROGRAM MANAGER
- COL KEVIN PETERSON, USA  
DEPUTY JOINT MRAP PROGRAM MANAGER

5:15 P.M. – 6:30 P.M.

ANNUAL CONFERENCE RECEPTION  
THE DEANZA BALLROOM I AND II  
THE PORTOLA PLAZA HOTEL AT MONTEREY BAY

EVENING ON OWN - ENJOY MONTEREY!

## SPOUSE/GUEST ACTIVITIES

ANNUAL CONFERENCE RECEPTION, MONDAY, FEBRUARY 4

A SPOUSE AND/OR GUEST OF A REGISTERED ATTENDEE, MAY ATTEND THE ANNUAL CONFERENCE RECEPTION.

5:15 P.M. – 6:30 P.M.  
(ADDITIONAL COST OF \$45.00)

A SPOUSE AND/OR GUEST OF A REGISTERED ATTENDEE MAY ATTEND THE ANNUAL CONFERENCE RECEPTION AT AN ADDITIONAL COST OF \$45.00.

THE “SPOUSE/GUEST TICKET” FEE(S) DO NOT INCLUDE ATTENDANCE AT ANY OF THE OTHER CONFERENCE FOOD FUNCTIONS: CONTINENTAL BREAKFASTS, COFFEE BREAKS, AND/OR LUNCH, OR CONFERENCE ATTENDANCE.



# TUESDAY, FEBRUARY 5, 2008

7:00 A.M. - 8:30 A.M.

CONTINENTAL BREAKFAST  
SERRA BALLROOM FOYER  
THE MONTEREY CONFERENCE CENTER

7:00 A.M. - 12:00 NOON

REGISTRATION CHECK-IN CONTINUES  
SERRA BALLROOM FOYER  
THE MONTEREY CONFERENCE CENTER

## SESSION III

CHAIRMAN: MR. TOM BAGWELL (SES),  
DEPUTY PROGRAM EXECUTIVE OFFICER  
COMBAT SUPPORT & COMBAT SERVICE SUPPORT (DPEO CS&CSS),  
U.S. ARMY  
SERRA BALLROOM  
THE MONTEREY CONFERENCE CENTER

8:30 A.M. - 9:10 A.M.

MEETING THE CHALLENGES OF TODAY AND TOMORROW  
• BRIGADIER GENERAL(P) JAMES CHAMBERS, USA  
COMMANDING GENERAL/COMMANDANT  
U.S. ARMY TRANSPORTATION CENTER AND SCHOOL  
• BRIGADIER GENERAL JOHN R. BARTLEY, USA  
PROGRAM EXECUTIVE OFFICER FOR COMBAT SUPPORT &  
COMBAT SERVICES SUPPORT (PEO CS&CSS)

9:10 A.M. - 10:00 A.M.

OVERVIEW - PM TV & JCSS

(9:10 - 9:30)

COL SCOTT KIDD, USA  
PROJECT MANAGER FOR TACTICAL VEHICLES

(9:30 - 10:00)

COL JOHN "STEVE" MYERS, USA  
PROJECT MANAGER FOR JOINT COMBAT SUPPORT SYSTEMS  
LT COL RUBEN GARZA, USMC  
PRODUCT MANAGER (USMC)  
JOINT LIGHT TACTICAL VEHICLES

## TUESDAY, FEBRUARY 5, 2008 (CONTINUED)

10:00 A.M. – 10:15 A.M.

MR. GARY TULL

CONFERENCE CLOSE-OUT

10:15 A.M. – 10:45 A.M.

COFFEE BREAK

SERRA BALLROOM FOYER

(SERRA BALLROOM WILL BE RECONFIGURED INTO TWO ROOMS)

10:45 A.M. – 12:25 P.M.

PM BREAKOUT SESSIONS

- WILL FOLLOW ON FROM OVERVIEW -

PM TV PRESENTATIONS

ATTENDEES CAN REMAIN IN SAME BALLROOM AS BRIEFERS WILL ROTATE

	GROUP 1 - SERRA (A)	GROUP 2 - SERRA (B)	GROUP 3 - STEINBECK BALLROOM
10:45 – 11:15	LTV LTC SAM HOMSY, USA PRODUCT MANAGER, LIGHT TACTICAL VEHICLES, PM LTV	MTV MR. JIM SATCHFIELD, DEPUTY PRODUCT MANAGER, MEDIUM TACTICAL VEHICLES, PM MTV	HTV LTC LEWIS JOHNSON, USA PRODUCT MANAGER, HEAVY TACTICAL VEHICLES PM HTV
11:15 – 11:20	SPEAKER ROOM TRANSITION BREAK		
11:20 – 11:50	MTV MR. JIM SATCHFIELD, DEPUTY PRODUCT MANAGER, MEDIUM TACTICAL VEHICLES, PM MTV	HTV LTC LEWIS JOHNSON, USA PRODUCT MANAGER, HEAVY TACTICAL VEHICLES PM HTV	LTV LTC SAM HOMSY, USA PRODUCT MANAGER, LIGHT TACTICAL VEHICLES, PM LTV
11:50 – 11:55	SPEAKER ROOM TRANSITION BREAK		
11:55 – 12:25	HTV LTC LEWIS JOHNSON, USA PRODUCT MANAGER, HEAVY TACTICAL VEHICLES PM HTV	LTV LTC SAM HOMSY, USA PRODUCT MANAGER, LIGHT TACTICAL VEHICLES, PM LTV	MTV MR. JIM SATCHFIELD, DEPUTY PRODUCT MANAGER, MEDIUM TACTICAL VEHICLES, PM MTV

*The National Defense Industrial Association  
wishes to acknowledge the following  
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**Freightliner LLC**

**Lockheed Martin JLTV Team**

**Mack Trucks**

**Nevada Automotive Test Center  
(Hodges Transportation, Inc.)**

**Oshkosh Truck Corporation**

***Thank-you for your generous support!***

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***The National Defense Industrial Association  
wishes to acknowledge the following  
Golf Tournament Hole, Prize, and  
Super Bowl Party Giveaway Sponsors:***

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**Custom Manufacturing Solutions , Inc.**

**Coorstek**

**EnerSys - Hawker Batteries**

**Force Protection Industries, Inc.**

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**General Kinetics Engineering Corporation**

**International Truck & Engine Corporation**

**Lockheed Martin**

**Lord Corporation**

**Mack Trucks, Inc./Volvo**

**Miltope Corporation**

**Omega Training Group**

**PPG Industries, Inc.**

**Premier Professional Systems, Inc.**

**Productive Resources**

**SCS/Frigette**

**Telephonics Corporation**

**VT Miltope**

**Whitney, Bradley & Brown, Inc.  
(Hampton, Virginia Office)**

***Thank-you for your generous support!***

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*The Tactical Wheeled Vehicles Division  
of NDIA thanks you for attending &  
we look forward to seeing you again next year.*

*The National Defense Industrial Association  
(NDIA)*

*thanks you for your participation in this  
year's conference, and wishes you a safe trip  
home.*



# **NDIA 2008 Tactical Wheeled Vehicle (TWV) Conference**

**Session III – Meeting the Challenges  
of Today and Tomorrow**





# *United States Army Transportation Center and School*

**BG(P) James E. Chambers**  
**Commanding General USATC&S**  
**Chief of Transportation**  
**5 February 2008**

***Spearhead of Logistics!***



# Light Tactical Vehicle Strategy



**Total HMMWV**  
**AAO: 152,528**  
**OH: 133,353**  
**GTA: 19,175**

## HMMWV

FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
13,068	13,679	6,525	4,555	3,383	858	1,358	1,329

Joint Light Tactical Vehicle (JLTV)				
IOC FY15	FY16	FY18	FY18	FY19
?	?	?	?	?
INC I			INC II	



FTTS ACTD demonstrators

**JLTV**  
**ACAT 1D**  
**Program**



USMC CTV demonstrator





# Medium Tactical Vehicle Strategy



**ACAT 1C  
Program**

**AAO:83,185  
OH: 33,271  
GTA: 49,914  
LSAC: 2,035**

FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
17164	15367	5707	3557	4035	3114	2376	2418



MTTCS



MTTS

**Continuous  
Capability  
Improvements**



# Heavy Tactical Vehicle Strategy



M915A3



M915  
AAO: 6,043  
OH: 6,355  
GTA: 8,738

Continuous  
Capability  
Improvements

Production  
based on FY08/09  
supplemental funding

FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
1980	1132	184	188	77	86	38	39

Identifying Next  
Generation Line Haul  
Capability in process

M915A5



Engineering  
Upgrades





# Heavy Tactical Vehicle Strategy



HEMTT A2



HEMTT  
AAO: 29,724  
OH: 13,405  
GTA: 29,724

HEMTT A4



FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
882	1265	574	109	72	48	55	55

Production  
based on FY08/09  
supplemental funding



HETS  
AAO: 1,974  
OH: 2,288  
GTA: 1,977

FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
0	807	246	7	7	0	0	0

Army Acquisition Objective - AAO  
On Hand - OH  
Grow The Army - GTA



# Tactical Wheeled Vehicle Training



HMMWV Egress Assistance Trainer

55 TOTAL  
37 FIELDIED  
34 CONUS  
3 USAREUR

29 TOTAL  
IN THEATER

72 TOTAL  
52 FLW  
20 FT BLISS



Motion-based Driver Trainer

Simulators Save Lives



Virtual Combat Convoy Trainer (VCTT)

FY08-13 POM  
21 Sys FY08  
Fielding FY09

- 2 USARPAC
- 1 USAREUR
- 1 FT HOOD
- 1 ARCENT

•2 FLW



Reconfigurable Vehicle Tactical trainer



# ***Expedited Modernization Initiative Process***



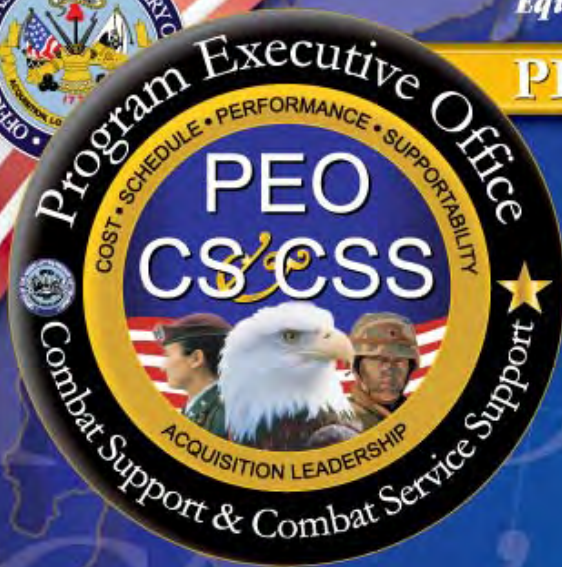
<http://contracting.tacom.army.mil/ssn/emip.htm>



**MARKET RESEARCH – NOT SOURCE SELECTION**

***EMIP: 14-18 Apr 08 (3rd Port, Fort Eustis, VA)***





*Equipping our Joint Warfighters with the World's Best Capability, Today and Tomorrow*

**PEO CS&CSS** *Program Executive Office*

*for*  
***Combat Support & Combat  
Service Support***

***NDIA 2008  
Tactical Wheeled Vehicle  
(TWV) Conference***

**JOHN R. BARTLEY**

*Brigadier General, USA*

*Program Executive Officer,*

*Combat Support & Combat Service Support*





# Agenda

PEO CS&CSS

PEO CS&CSS

- ◆ **Our Goal**
- ◆ **Our Focus**
- ◆ **Our Challenges**
- ◆ **Our Approach**
- ◆ **Our Need**
- ◆ **Our Strategy for Future Acquisitions**

*Equipping our Joint Warfighters with the  
World's Best Capability, Today and Tomorrow.*





## Our Goal

PEO CS&CSS



- ◆ Design, Develop, Field, and Sustain – at a Reasonable Cost
- ◆ We Provide the Platform and Total System Integration – Everything Else is Developed by Others

***Overcoming the Challenges of Today's Rapidly Changing Requirements Requires Strong Partnership Between Government and Industry***

*Equipping our Joint Warfighters with the World's Best Capability, Today and Tomorrow*



# Our Focus

PEO CS&CSS

PEO CS&CSS

## Is to be Prepared for...

### ◆ Changes in Threat

- Small Arms
- Mines
- IEDs/EFPs

### ◆ Changes in Technology

- Ability to Keep Step with Technology Advances
- The Army is serious about designing with Future Growth in Mind - Headroom - Improve Capability, Survivability, Network Communication and Reduce Burden on Soldier and Operating Costs

### ◆ Changes in Mission

- Type of Conflict
- Type of Unit
- Homeland Defense



THREAT



TECHNOLOGY



MISSION



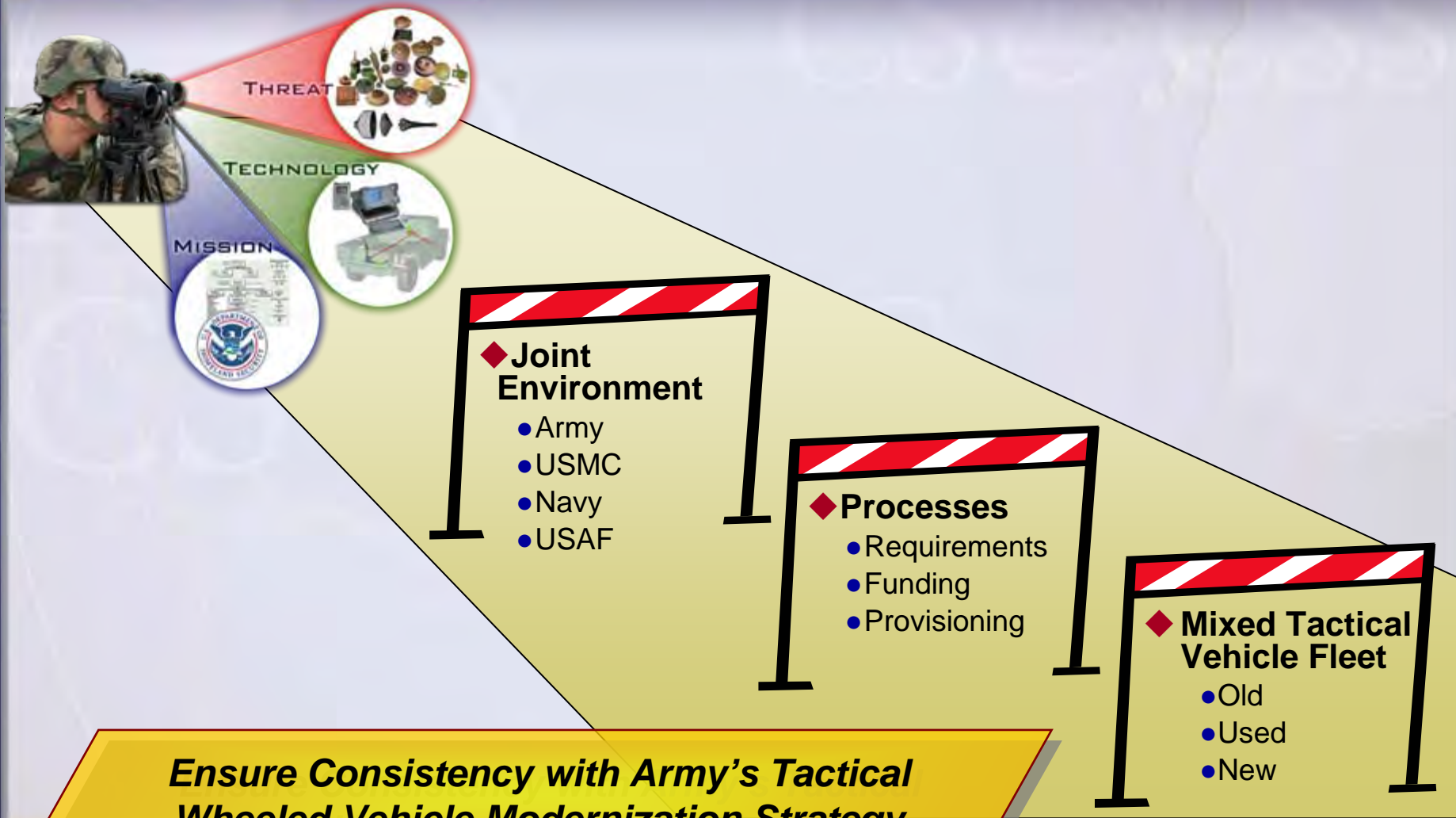




# Our Challenges

PEO CS&CSS

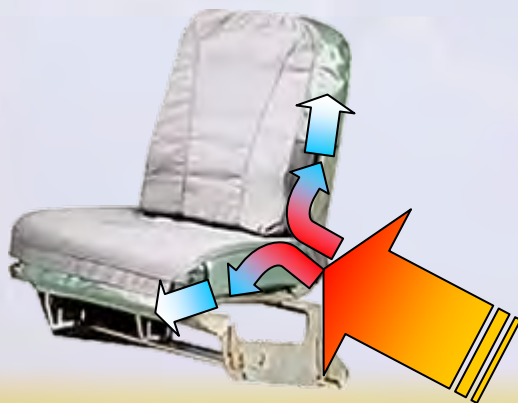
PEO CS&CSS



### ***Current Experiences Drive a Need for Refined Capability:***

#### ◆ **Survivability**

- Fire Suppression:
  - Passenger
  - Engine
  - Fuel Tank
  - Tire
  - Outer Shell
- Energy Dissipation



Outer Shell

Passenger

Fuel Tank

Engine

Tire



# Our Approach

PEO CS&CSS

## ◆ Scalable C4I

## ◆ Adaptable Levels of Protection

- Crew
- Vehicle
- Payload/Cargo

## ◆ Commonality/Family

- System Design
- Repair Parts/Sources of Supply
- Tools
- Maintenance Procedures
- Training
- SWaP – Do More with Less

## ◆ Ideally with No Impact on:

- Payload
- Performance
- Protection

***Balance Improvements and Design Changes Across the three P's***



# Our Strategy for Future Acquisitions

## PEO CS&CSS

### The Idea!



- ◆ A Kit / B Kit Development
- ◆ Plug and Play Capability
- ◆ Modularity
- ◆ Flexibility
- ◆ Common/Commercial Standards vs Unique

- USB
- Light Socket
- Electrical Outlet in a Room
- Cigarette Lighter in a Car

### The Reality!



**A-KIT** – Electronic Controls & Databus

**B-KIT** – Vehicle Computer & Comm Suite

*Giving the Commander in the Field the Ability to Adapt to Changes...to Mission...to Threat ...to Technology!*

*Equipping our Joint Warfighters with the World's Best Capability, Today and Tomorrow!*





- ◆ **It's All About Effective Integration**
- ◆ **Design From the Beginning to Accommodate Change in Threat, Mission & Technology**
- ◆ **Change Quickly**
- ◆ **SWaP is a Finite Resource, Considered in the Beginning with Growth in Mind**

***Stand on Each Other's Shoulders to Reach Higher and Achieve More Together To Meet the Challenges of Today's Rapidly Changing Requirements***



# PM Tactical Vehicles ~ *The Army Truck Team!*



## MISSION

*The lifecycle management of light, medium and heavy tactical vehicles enabling the Modular, Joint and Expeditionary Ground Force*

## OTHER SIGNIFICANT PROCUREMENT EFFORTS

- Safety Enhancements
- Add-on-Armor/GPK

**= \$1.5B**

## Project Manager

**COL Scott R. Kidd**

Deputy PM Acquisition: Tony Shaw

Deputy PM Logistics: Cesare Gaglio

## PRODUCT MANAGERS

- Light Tactical Vehicles
  - ◆ **LTC Samuel Homsy**
- Medium Tactical Vehicles
  - ◆ **LTC Alfred Grein**
- Armored Security Vehicle \* *Newly Established*
  - ◆ **LTC Moorhouse**
- Heavy Tactical Vehicles
  - ◆ **LTC Allen Johnson**

## DIVISION CHIEFS

- Business Management
  - ◆ **Mike Scharra**
- Acquisition Logistics
  - ◆ **Ray McMillen**
- Engineering
  - ◆ **Joe Keusch**
- PAT&E
  - ◆ **Larry McNamara**



# Kidd's Screen Saver ~ FY08



## AoA Surge



HEMTT AoA



LSAC Production



Objective - Gunner Protection Kit (O-GPK)

## GWOT Support



Frag Kit 5/GPK



TPE Refurb



Gunner Restraint Harness

## Berry Amendment Specialty Metals

## Production



M1117 ASV



LSAC



M1151/52

## Modularity/ Grow the Army



HMMWV



HTV



FMTV

*Full spectrum support to the War Fight & Modularity*





# 3 CSL PMs ~ Approximately 220K Systems Fielded, over 150K Systems supported



## Light Tactical Vehicles

- 29 variants
- 161K systems fielded
- @ 65-80 HMMWVs / Day

96% OR

- ◆ HMMWV Family of Vehicles
- ◆ UAH Safety Enhancements
- ◆ HEAT Trainer (UFR)



## Family of Medium Tactical Vehicles

- 17 variants
- 33K systems fielded
- @ 800 / Month

ACAT I

- ◆ High-Mobility Artillery Rocket System (HIMARS)
- ◆ M935/M809 Series 5 Ton Trucks



92.2% OR



## Heavy Tactical Vehicles

- 33 variants
- Over 29K systems fielded
- @ 700 / Month

91% OR

- ◆ Heavy Expanded Mobility Tactical Truck (HEMTT)
- ◆ Palletized Load System (PLS)
- ◆ M915 Family of Vehicles
- ◆ Heavy Expanded Mobility Trailer (HEMAT)
- ◆ Heavy Equipment Transport Systems (HETS)
- ◆ Container Handling Unit (CHU)



## Armored Security Vehicle

- 2 variants
- Approx 800 systems fielded
- @ 48 / Month (post Katrina)

- ◆ M1200 Armored Knight



90% OR

The Army's Largest Major Item Producer

Big Business, Lots going on daily!





# TWV Current Fleet Status – OIF



	# IN OIF	AVG AGE	EUL* Yrs	Annual Peacetime Mileage	Annual OIF/OEF Mileage	
Up-Armored HMMWVs (M1114, M1151/52, M1165)	25,378	2.8	15	1,651	10,502	*
Non-Armored HMMWVs	1,135	14.4	15	2,035	3,755	
AoA HMMWVs (AoA Kits being removed in RECAP)	1,135					
FMTV 2.5 Ton LMTV	4,200	7.2	20	1,930	1,628	
FMTV 5 Ton MTV				1,502	1,963	
M809, 5 Ton Series Truck, Manual Transmission	37	32.2	20	900	N/A	*
M939, 5 Ton Series Truck	987	18.7	20	1,387	959	
M35, 2.5 Ton Series Truck	121	34.4	20	989	N/A	
HEMTT	1,567	17.3	20	1,700	3,306	
Palletized Load System (PLS)	975	10.5	20	1,617	1,760	
HETS (M1070)	566	10.3	20	1,184	12,039	*
M915, Line Haul Tractor (M915 FOV)	1,086	12.4	20	3,794	20,211	*

\* Largest Delta from Peacetime to Wartime OPTEMPO

***BL: A Legendary fleet doing well despite duty cycle, in an extremely hostile environment***

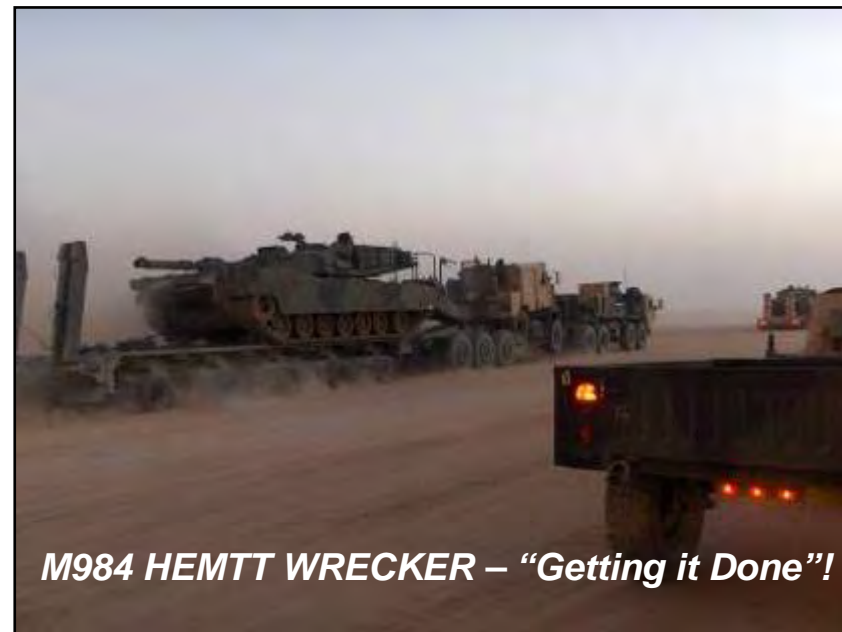
***How can you help reduce O&S now and in the future?***



# GWOT Support:



- Executing Objective Gunner Protection Kit w/ MNF-I Mods (To date, 10,460 kits Installed in AOR) on TWVs, demand continues to grow!
- Completed Frag Kit (FK) 5 for UAH Systems, enhancing Soldier protection against IED events and other threats (To date, 14,545 Installed in AOR). Developing Frag Kit 6 for limited application.
- Safety Enhancements Program “Build-out”, integrated most into current UAH production baseline. Over 90K “eaches” delivered to the AOR.
- Other Key efforts underway:
  - ◆ ECM – Mission Module deconfliction
  - ◆ 400 amp alternator upgrade kit
  - ◆ Casualty Evacuation (CASEVAC) kit integration, External Fuel Tank Protection
  - ◆ ASV Frag Kit, Turret Bolt upgrades
  - ◆ Intensive management of tires, AC parts, M1151 & ASV Spares, other ‘consumables’ that result from a period of protracted war
  - ◆ TWV Surge for MTV/HTV Armored Systems
  - ◆ New load range E tire for LTV Fleet





# ASV: Significant Events for FY08



- Maintaining  $\geq 90\%$  OR
- Continuing production @ 48/Month
- Performing RESET Pilot program (RRAD)
- Conducting CONUS Training
  - ◆ Camp Shelby (mobilization site)
  - ◆ Fort Dix (mobilization site)
  - ◆ Fort Leonard Wood (Crewman's Course – Mar 08)
- Applying Retrofits in theater
  - ◆ Frag Kit 1
  - ◆ Frag Kit 2
  - ◆ Turret Bolt
  - ◆ Firing Switch
  - ◆ Parking Brake Interlock



*From the Balkans to Baghdad, ASV is a Force Multiplier.*



# OIF/OEF: “The Long War”



“The Long War” = Opportunities for you to help us... in the areas of:

## ● Space Management

- ◆ Space management both under the hood and in crew compartment an issue. Smaller footprints for components, accessories and modules are desirable.

## ● More Demand on existing Power Distribution Infrastructure (not readily able to accept higher output demand).

- ◆ Wiring, circuit breakers, switches sized for lower output legacy alternators, we’re going to 400!
- ◆ Replacement wiring harnesses need to be able to achieve desired higher demand

## ● Thermal Management in hostile environment

- ◆ Heat reduction in crew compartment and in automotive components continues to be a challenge

## ● Operation & Support Cost Reduction opportunities

- ◆ Frame and Suspension components longevity an issue
- ◆ Filters/Oils/Brakes
- ◆ Ballistic glass, armor components

***Did I say we’re a \$10B Business?***





### From the Operations Sergeant Major, 1-221<sup>st</sup> Cavalry Squadron

Discipline. Professionalism. Competence in the Field.

Colonel Kidd,

We want to thank you for all the support you've given us. We cannot even begin to explain the positive impact every person in your organization has had on the war fighters here. In the past months, we have traveled approximately 4 million miles in harm's way. The Armor upgrades you and your group provide for us combined with LTC Caires' and SFC Mortons' work on distribution make it safer to conduct combat operations.

We brought 120 soldiers with us from 1-221 Cavalry from the Great State of Nevada. Every one of these Soldiers is a volunteer. We all came directly from a 2 year deployment at the National Training Center directly to the Iraq Theater of Operations. When you spend three years with soldiers you worry every time they go into harms way. Your Armor program helps to mitigate so many of the risks we face on a daily basis.

SGT Orozco's gunner (the Soldier you met at Navistar) is SPC P. He is a 22 year old college student from Nevada and he volunteered for this deployment after NTC. He was on a mission as a gunner in Iraq with one of your new turrets. His turret took a direct hit from an EFP and he walked away with zero injuries. Yes, I said zero! That has not been the fact with Soldiers with the previous turrets.

SPC P just came in my office and dropped off a Harley shirt for me from Ireland. He just returned from R and R leave. He said that this leave had significant meaning because he knows that had it not been for that turret he would not be with us today.

On behalf of the United States Cavalry, the 11th ACR, 1st Squadron 221st Cavalry, myself and most of all SPC P, we thank you for all your hard work. Please let you staff know how much we appreciate them.

Keep up the great work! It is appreciated.

Robert S Brown  
SGM, USA



## SPC P is home now!

## Questions?



# Joint Combat Support Systems



## MISSION

Develop and Acquire Joint Combat Support Systems for Expeditionary Forces

## VISION

Support the Joint Warfighter across the spectrum of conflict

## Project Manager

**COL John S. Myers**

Deputy PM Acquisition: Mr. Dennis Mazurek

Deputy PM Technology: Mr. Joel Wagner

## PRODUCT MANAGERS

- ◆ Sets, Kits and Outfits
  - LTC Brian Tachias
- ◆ Joint Light Tactical Vehicle
  - LTC Wolfgang Petermann
  - LtCol Ruben Garza (USMC)

## PRODUCT DIRECTORS

- ◆ Test, Measurement & Diagnostics Equipment
  - Mr. Steve Lingar

## PRODUCT OFFICE

- ◆ Horizontal Technology Insertion
  - Mr. Jim Loughridge

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

*Equipping Our Joint Warfighters with the World's Best Capability... Today & Tomorrow*





# Product Director – Test, Measurement and Diagnostic Equipment (PD TMDE)



<http://pmtmde.redstone.army.mil/>



Maintenance  
Support  
Device (MSD)



Calibration Sets (CALSETS)



General Purpose  
Electronic Test  
Equipment (GPETE)



Portable Radar Test Set



Wireless Diagnostic  
Sensors (WDS)



# Product Manager - Sets, Kits, Outfits and Tools (PM SKOT)



<http://pmskot.army.mil>

Tool Kit  
Carpenter,  
Squad Box  
(CTK-S)



Shop Equipment Contact  
Maintenance  
(SECM)



Standard  
Automotive  
Tool Set (SATS)



General  
Mechanics  
Tool Kit  
(GMTK)



Carpenters,  
Tool Kits (CTK)



Forward  
Repair System (FRS)







# Horizontal Technology Insertion (HTI)



<http://contracting.tacom.army.mil/ssn/emip.htm>

## Expedited Modernization Initiative Procedure (EMIP) Component Technology Demonstrations



**MARKET RESEARCH – NOT SOURCE SELECTION**



# Expedited Modernization Initiative Procedure (EMIP) - What is It?

## ◆ What is EMIP?

- Multi-phased, continuous process designed to improve Current / Future Tactical Wheeled Vehicle Fleet
- Identify & leverage Industry's investment in advanced technologies
- Provide both the Government & Contractors a single point of contact

## ◆ Qualification

- Technology Readiness Level (TRL) 7: actual system completed/qualified thru test & demonstration (no R&D)
- Available for production within 6 months
- Technologies new to Army (not already demonstrated in its current configuration)

## ◆ Submit Technology Application Ideas (TAIs) and Demo Plan in MS Word format to PM TWV mailbox

- TruckTech@conus.army.mil

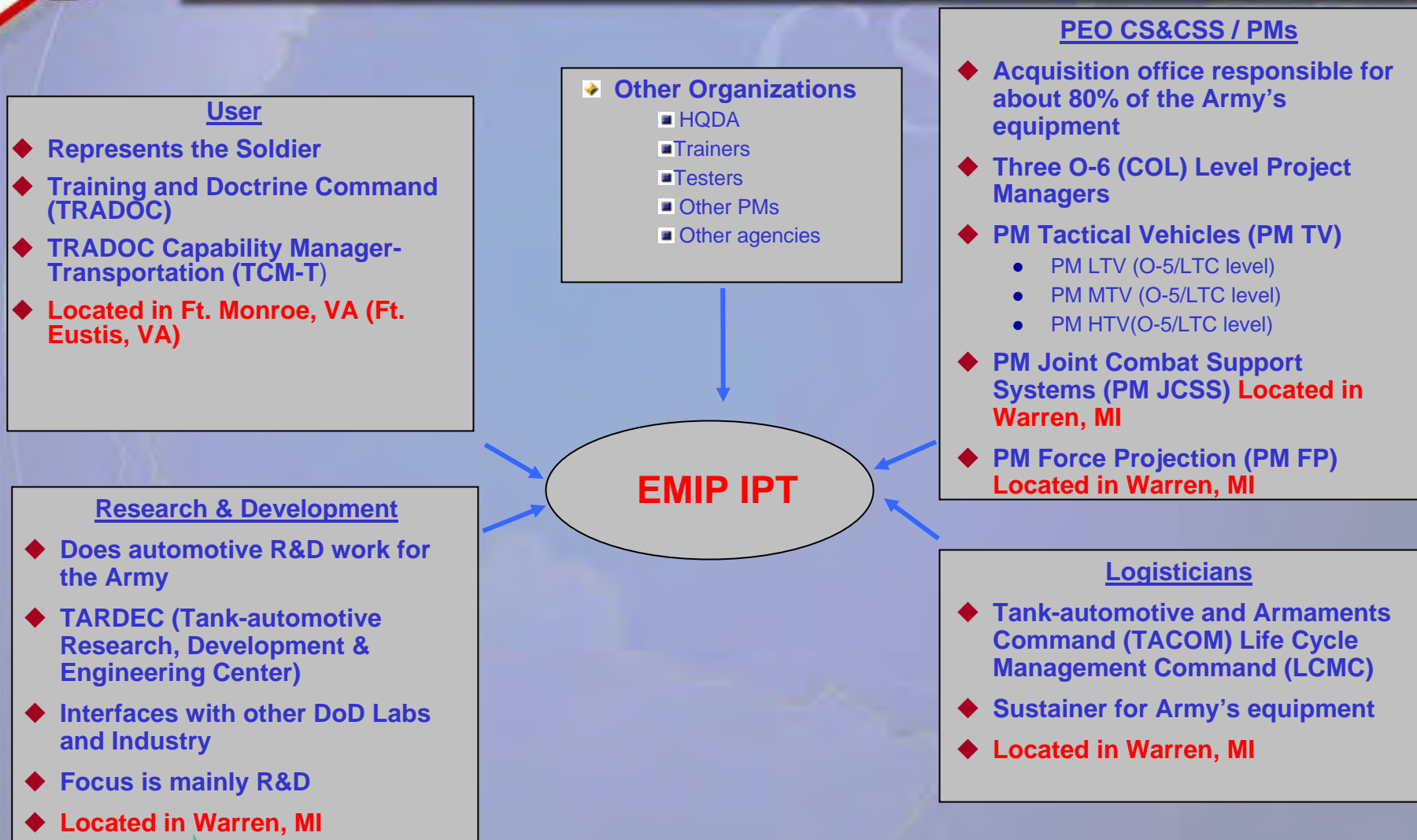
<http://contracting.tacom.army.mil/ssn/emip.htm>



- *Market Education not Source Selection*



# Key Participants



**BL**

- Diverse viewpoints represented through IPT process





# Next EMIP: 14-18 Apr 08 (Fort Eustis, VA)

## ◆ Demonstration Capabilities

- Four Separate Sets of Demonstrations per Day (Mon-Fri)
- Vehicle Interior & Tire FireSuppressions
- Vehicle Systems (static & dynamic (Ride))
- Communications
- Live Fire
- Watercraft, Rail Car, Helicopter

## ◆ EMIP IPT Approved Demonstrations

- Live Tire Fire Suppression Demonstrations ( 2 Hand Held & 2 Systems)
- Manual Impact Wrenching technology (no air or power used)
- High volume-low pressure water/air alternating pulse cleaning system for Internal Combustion Engine (ICE) cooling system cavities.
- High efficiency over-pressurized compressor to deliver cooler, pressurized, oxygen-rich air to engine turbo charger. Potential for increased fuel efficiency.

## ◆ General Attendance (Invited)

- Military (All Services)
- VIP's (Civilian, Military, Congress)
  - Civilian Leaders (SES's)
  - PEO's and PM's
  - Representatives & Senators (HAC & SAC)

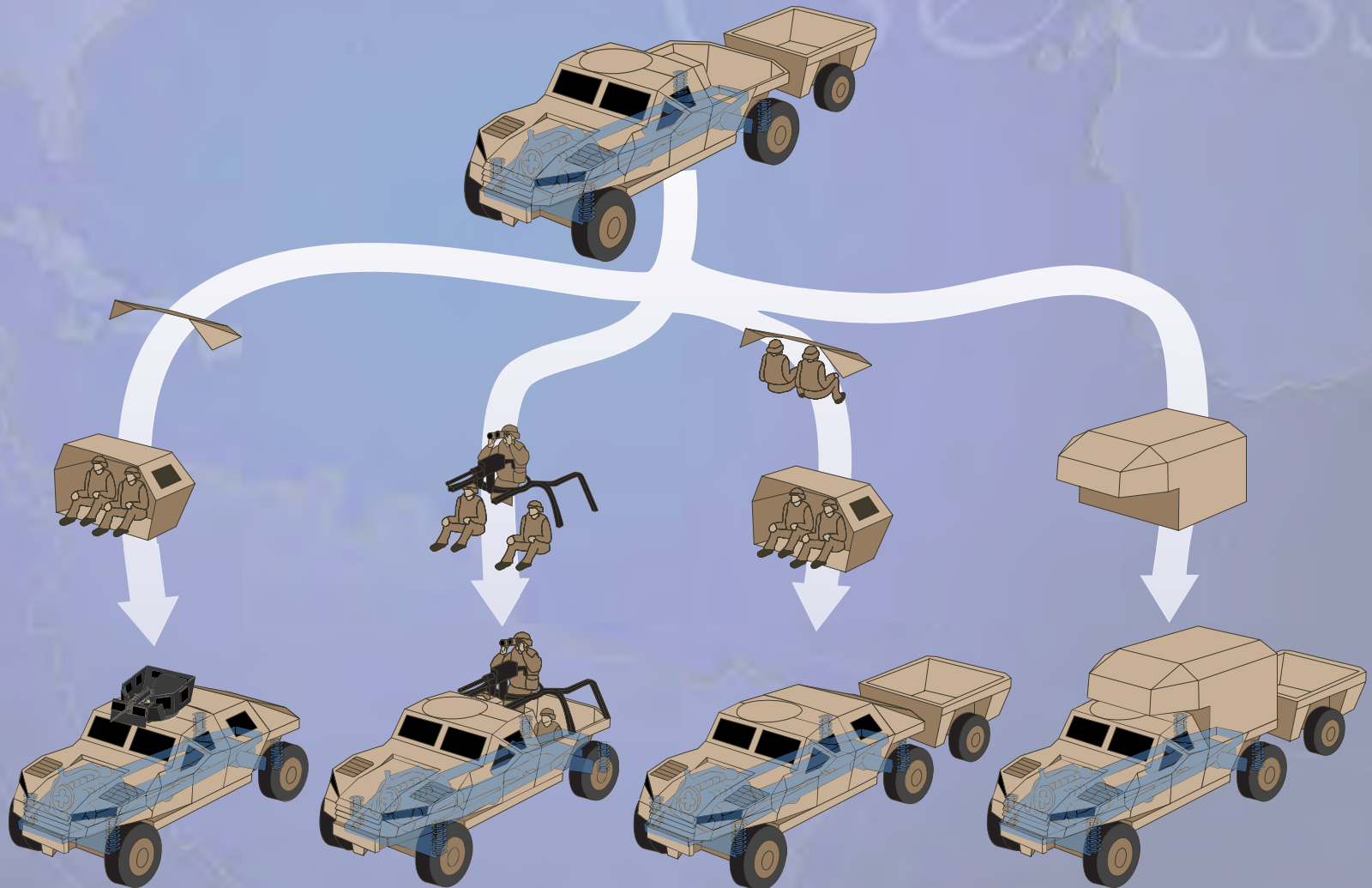




# PM Joint Light Tactical Vehicles (PM JLTV)



<http://contracting.tacom.army.mil/majorsys/jltv/jltv.htm>



*Equipping Our Joint Warfighters with the World's Best Capability... Today & Tomorrow*



# The Balanced Solution – JLTV Family of Vehicles and Trailers



## PAYLOAD CATEGORY A

### Battlespace Awareness Mission Area

Payload: 3,500  
Performance: Exceed HMMWV  
Transport: 1x EAT\* CH/MH 47/ CH53  
2x IAT\*\* C130

#### Sub-Configurations

General Purpose Mobility  
(JLTV-A-GP) (4 Seat) - **Army/USMC**

#### ONR & TARDEC Concept Examples



\* EAT: External Air Transport  
\*\* IAT: Internal Air Transport  
\*\*\* USMC & Army JLTV-B-ICs  
may be the same vehicle

## PAYLOAD CATEGORY B

### Force Application Mission Area

Payload: **4000 / 4500 lbs**  
Performance: Exceed HMMWV  
Transport: 1x EAT\* CH 47/53  
1x IAT\*\* C130

#### Sub-Configurations

Infantry Carrier, Fire Team - **USMC\*\*\***  
Infantry Carrier, Fire Team - **Army\*\*\***  
(JLTV-B-IC) (6 Seat)

Reconnaissance, Scout (6 Seat) - **Army**

Reconnaissance, Knight (6 Seat) - **Army**

Command & Control On The Move  
(JLTV-B-C2OTM) (4 Seat) - **Army/USMC**

Heavy Guns Carrier (MP, Patrol, Escort)  
(4 Seat+ Gunner) - **Army/USMC**

Close Combat Weapons Carrier (4 Seat)  
**Army/USMC**

Utility (2 Seat) - **USMC**

Ambulance (3 Seat+2 Litter)  
**Army/USMC**

#### ONR CTV Demonstrator Vehicle



#### ONR & TARDEC Concept Examples



## PAYLOAD CATEGORY C

### Focused Logistics Mission Area

Payload: 5,100 lbs  
Performance: Exceed HMMWV  
Transport: 1x EAT\* CH 47/53  
1x IAT\*\* C130

#### Sub-Configurations

Shelter Carrier / Utility / Prime Mover  
(JLTV-C-UTL) (2 Seat) - **Army/USMC**

Ambulance (3 Seat+4 Litter)  
**Army/USMC**

#### Army FTTS Demonstrator Vehicles



#### ONR & TARDEC Concept Examples



**Trailers** for each payload category to  
have similar payload and mobility  
as prime movers.





# DAE JLTV Acquisition Review – 10 Sep 07 Direction



## ◆ DAE Concerns:

- Firm requirements
- Maturity of technology to meet the requirements
- Funding adequacy

## ◆ DAE Guiding principles - programs will not enter SDD unless:

- Demonstrated high probability of delivering systems on time and within budget
- Programs are fully funded
- Additional guidance:
  - Competitive prototyping and testing demonstrating achievable levels of the requirements
  - Analysis of options to sustain a competitive environment in tech development, SDD and production phases
  - Maximized commonality of high cost components across the vehicle variants
  - An SDD phase that includes entrance and exit criteria with demonstrated technology and manufacturing and integration readiness
  - Work with Joint Staff to define appropriate levels of protection from threats and incorporate lessons learned from OIF/OEF

**JLTV Directed to a MS A review as soon as practical**





# Outcomes from JLTV DAB - 5 Dec 07

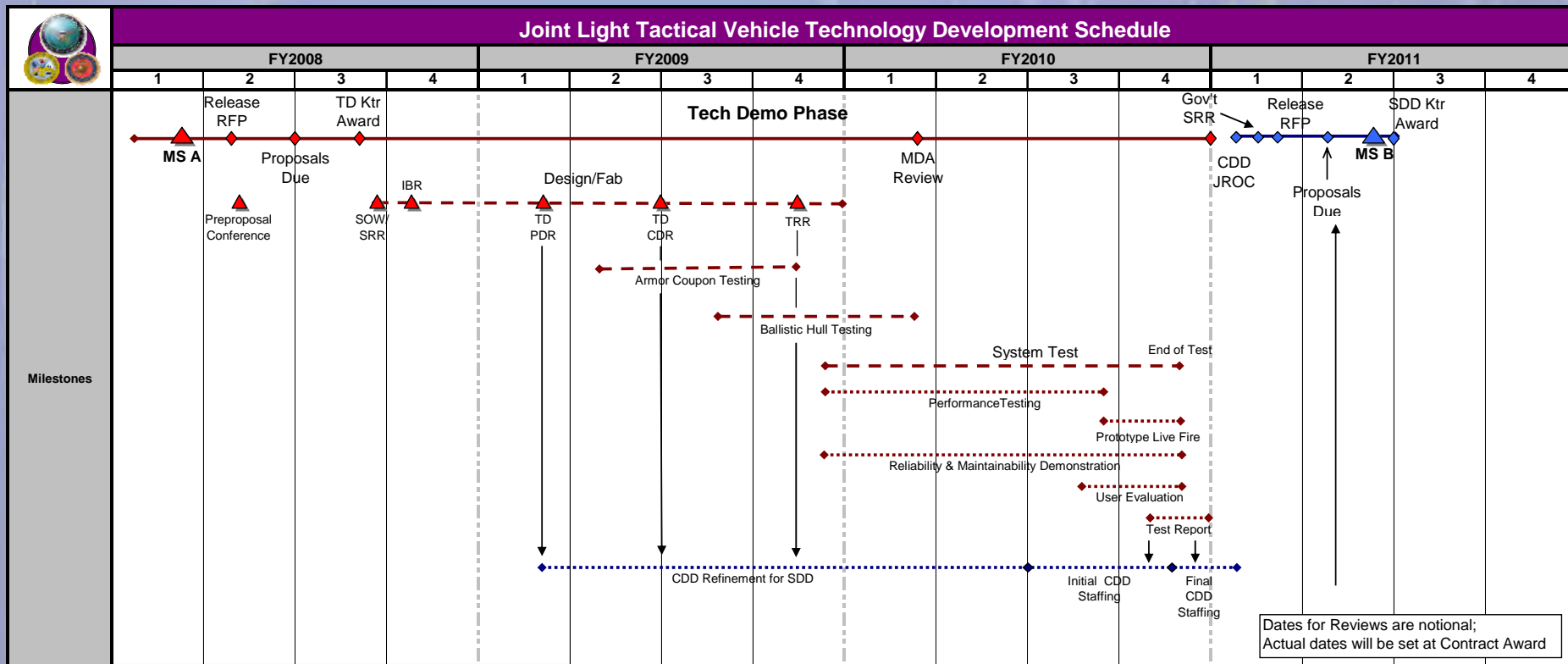


- ◆ **Approval to enter Acquisition Process at MS A**
- ◆ **Approval to release RFP for Technology Development (TD)**
  - Multiple Contract Awards
  - Full and Open Competition
- ◆ **Approval of TD Exit Criteria**
- ◆ **Army designated as Lead Service**
- ◆ **Designation of JLTV as Pre-MDAP**
- ◆ **Program documents to be approved within 90 days**
- ◆ **Services directed to fund SDD Phase**





# TD Schedule





# ONR (NATC) – Combat Tactical Vehicle (CTV) Technology Demonstrator (TD)



## Survivability & Force Protection

- 6 Marine/Soldier cab
- Monocoque Aluminum-based V-Shaped Lower Hull with Integrated Armor/Structure
- Modular Armor Kit
- Blast-Mitigating Seats
- Air Conditioning w/ Modular NBC
- Automatic Fire Suppression
- Accepts Multiple Weapons Stations

## Network Centricity

- Integrated communications suite

## Sustainability

- Limited on-board diagnostics
- 10Kw on the Move & 30Kw Stationary Integrated, exportable AC power

## Transportability

- 96" w x 220" l Operational Ht = ~ 86 inches & Reducible Ht = 76.4 inches
- CH53/CH47 EAT & C130 Transportable
- MPS & Amphibious shipping
- Demonstrator curb weight = 15,600 lbs

## Mobility

- 322 Hp Detroit Diesel 926
- 6-Speed Twin Disc Transmission with Integral Transfer Case
- SLA Independent w/ 3-Position Ride Height Adjustment & 24" Wheel Travel
- Central Tire Inflation Systems (CTIS)
- Anti-Lock Braking System (ABS) w/ Integrated Stability Control

## Payload

- 6000 lb payload with integral armor

## Operational Range

- 400 miles







# CTVTD LUE Overall Summary

- ◆ **Marines: 22 Oct – 02 Nov (497 Miles)**
  - 7 Infantry / Combat Engineer / MT Operator & Maintenance
  - 2 MT Operator / MT Maintenance
- ◆ **Army: 05 – 16 Nov (595 Miles)**
  - 6 Infantry / Tank Crew
  - 1 Maintenance Chief
- ◆ **Air Force/Navy: 26 – 30 Nov (248 Miles)**
  - 4 Airman-Air Security Personnel
  - 3 Seabees-Equip Operator / Maintainer
- ◆ **CTVTD operated at 21,850 lbs plus 6-Man Crew**
  - Primary Road ~ 75 miles
  - Secondary Road ~ 245 miles
  - Trails ~ 480 miles
  - Cross-country ~ 540 miles
  - CTVTD average off road speed
    - 10 to 15 mph faster than HMMWV
- ◆ **M1114 w/o payload & 2-man crew**
  - Power steering pump failure at ~300 miles
  - Frame failure at ~340 miles
- ◆ **Replacement M998 w/o payload & 3-man crew**
  - Failed rear lower control arms at ~1250 miles





# LUE Participants' Comments

## POSITIVES

- ◆ Size, Power, & Mobility
- ◆ Ability to accomplish range of missions
- ◆ Inherent Protection
- ◆ Quickly adapted to vehicle features & capabilities (relative to HMMWV)
  - **More Systems**
    - CTIS, Adjustable Ride Height, ABS, Axle Locks
  - **Driver Interface to Electronic Controls**
    - Gages & Switches
- ◆ Saloon Doors for Flank Protection During Dismount
- ◆ Fore & Aft Adjustable Front Seats

## CONCERNS

- ◆ Interior Stowage Volume
- ◆ C4I Suite Placement
- ◆ Visibility & Situational Awareness
  - **Blind Spots at Driver & Commander Positions**
  - **Rearward Visibility & Situational Awareness**
  - **Immediate Front & Close-in Side Visibility**
- ◆ Vehicle Height - Combat Dismounts & Mounts

## RECOMMENDATIONS

- ◆ Need to Address Internal Stowage
  - **Provide Space & Means to Secure Equipment**
  - **Want certain items accessible from inside**
    - E.g., ammo, water, chow, mission equipment
  - **Comfortable w/ Outside Stowage**
- ◆ Turret Ring Location
  - **Room for Gunner's Feet**
  - **360 Deg Freedom of Movement**
- ◆ Do not need smaller rear side door
- ◆ Means to quickly lower vehicle from Combat Height for Combat Dismounts
- ◆ Wrap around instrument panel to provide more room btwn Driver & Cmdr/A-driver
- ◆ Potential for Opening Windows
  - **In Event of Non Functional HVAC**





# Combat Tactical Vehicle Demonstrator



Payload, Performance, Protection



# Summary

- ◆ EMIP info at <http://contracting.tacom.army.mil/ssn/emip.htm>
- ◆ JLTV Program Updates at <http://contracting.tacom.army.mil/majorsys/jltv/jltv.htm>